

Yosemite National Park

National Park Service
U.S. Department of the Interior



Yosemite Valley Shuttle Buses

As called for in the *Yosemite Valley Plan*, a new fleet of low- emissions, low- noise, fuel- efficient shuttle buses have been purchased by the National Park Service to replace the pre- existing fleet of 1986 diesel buses that serviced Yosemite Valley.

The National Park Service demonstrated its ongoing commitment to preserving the natural beauty and environment of its national parks by celebrating the delivery of a new fleet of 18 shuttle buses on April 25th, 2005. This is the first fleet of hybrid buses to operate in a U.S. national park.



Hybrid Bus Dedication—April 2005

What is a hybrid electric-diesel bus?

“Hybrid” refers to a “mix” of power sources; a hybrid electric- diesel bus is powered by both electricity and diesel (or biodiesel) fuel. By adding battery power to the vehicle, it is possible to reduce the size of the vehicle’s internal combustion engine. This results in many advantages, including reduced emissions, reduced noise, and increased fuel economy. The batteries stay charged by an electrical generator powered by the diesel engine, and also by regenerative braking—which means that the battery is recharged as the vehicle slows down.

Why go hybrid?

For over a year, the National Park Service has been working in cooperation with the U.S. Department of Transportation, private sector transportation consultants, and the park’s shuttle system operator (DNC Parks & Resorts at Yosemite) to determine the best type of transit bus for the Yosemite Valley shuttle system. This system is expected to serve Valley visitors for the next 10- 15 years, which is the estimated life of a bus.

Several types of alternative fuel buses were seriously considered, including compressed natural gas (CNG), liquefied natural gas (LNG), propane, ethanol, methanol, fuel cell, pure battery electric, and hybrid electric.

What decisions had to be made?

In June 2003, Yosemite National Park made a decision to use 40- foot hybrid electric- diesel transit buses. The recommendation of hybrid electric- diesel buses was based on findings that they result in 50- 60% fewer emissions than conventional diesel buses, with an improvement in fuel economy and noticeably quieter operations. Moreover, compared with other alternative fuel bus systems, the hybrid electric- diesel does not require expensive modifications to existing bus maintenance facilities. Finally, the hybrid electric- diesel buses do not rule out the possible future use of biodiesel—a renewable fuel that would further reduce the park’s use of and dependence on petroleum.

What features do the new buses have?

In order to ease getting passengers on and off the bus, the new shuttles are below-floor vehicles where the steps into the bus are closer to ground level. Many transit agencies around the world are switching to this new passenger-friendly vehicle, as it reduces boarding injuries and the time required to load and unload passengers.

Many visitors also expressed a desire to be able to look up and see clear views outside the shuttle bus. In response, the new buses have large operable windows for excellent viewing. Passengers will also enjoy air conditioning during the Valley's hot summer months. To improve visitor orientation, the new buses have readable destination signs as well as clearly posted route maps.

Per the request of the maintenance staff, the new buses have automatic snow chains. These and other features have made the new Yosemite Valley shuttle fleet an exciting improvement for its nearly 2.5 million annual passengers.

Visitor feedback about the new buses has been positive. Those who have seen and ridden the buses have stated that they are considerably quieter than the previous shuttles and do not exhibit tangible exhausts like the pre-existing shuttle fleet. In addition, visitors are impressed with the smooth acceleration of the electric-diesel hybrid buses.

Public Participation

Add your name to the park's mailing list (to address/fax/email below) and receive the *Planning Update* newsletter as well as other planning-related notices. You can also submit your email address to receive Yosemite National Park's periodic electronic newsletter.

Mail: Superintendent
Attn: Planning Mailing List
P.O. Box 577
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The status of other Yosemite National Park improvement projects will be periodically updated on the park's planning web site. Visit online: www.nps.gov/yose/planning.